

Attorney Docket: 101215-52

REMARKS

Claims 1-29 are pending. The issues raised by Examiner will be addressed in the sequence in which they appear in the office action.

Drawings and Specification

Examiner objects to the drawing element (3), the cooling element. Examiner requires that the cooling elements be shown between the gel chambers or be canceled. It is respectfully pointed out that the elements would not be visible in the assembled apparatus. For this reason, Figure 2, illustrates the position of these elements.

The cooling elements (3) and (10), page 12, represent a labyrinth or continuous series of channels that conduct cool water along the surfaces of the first and second dimension gels.

It may be that the reference to these elements being "located underneath the gels....," is somewhat confusing to the Examiner. To address this possibility, the specification has been amended by substituting the second paragraph of page 12, with the replacement paragraph shown above in marked up format.

This amendment does not add new matter.

Claims

Claim 11 was amended to more clearly describe the position of the apparatus's cover.

Claims 4, 17, 20, 26 and 27 were amended according to Examiner's suggestions. However, claim 20 should be amended by adding "it" between *drawing* and *out*, not between *by* and *drawing*.

§ 112, First Paragraph

A. Claims 1-8 are believed not to be supported by an enabling disclosure.

In response, Claim 1 has been amended to emphasize that the apparatus has two chambers to allow for two electrophoretic analyses simultaneously. Further, the amendment

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clarifies that in each chamber, the user would cast a single first dimensional gel and a single second dimensional gel.

It is respectfully requested that this basis for rejection under § 112 be withdrawn.

B. Claims 9-15 are rejected because Examiner believes that the claims are not enabled. Examiner believes that the cooling elements being arranged between the chambers are not described in the specification or drawings.

In response Applicants have amended claims 9 and 15 to clarify that the cooling elements are in contact with the inner plates.

It is respectfully requested that this basis for rejection under § 112 be withdrawn.

C. Examiner believes that Claims 16-18 are not enabled. Attention is drawn to Figures 6-10 demonstrating embodiments wherein the first gel is above the second gel.

It is respectfully requested that this basis for rejection under § 112 be withdrawn.

D. Claim 23 has been amended to address Examiner's issues.

**Indefiniteness**

The claims have been extensively amended according to Examiner's suggestions. In response to Examiner's questions that were not addressed by amendment, the remarks below are provided for explanation.

With respect to Examiner's question on page 7, 11(d) – figure 6 demonstrates that single piece of tubing can separate the first and second gels. The same principle would be applicable to virtually any configuration of the two gels.

Examiner has asked "aren't gels polymerized"? Apparently, use of the term "gel" as referring to the unpolymerized solution of monomers is confusing to the Examiner. However, this terminology is well-known and commonly used in the art.

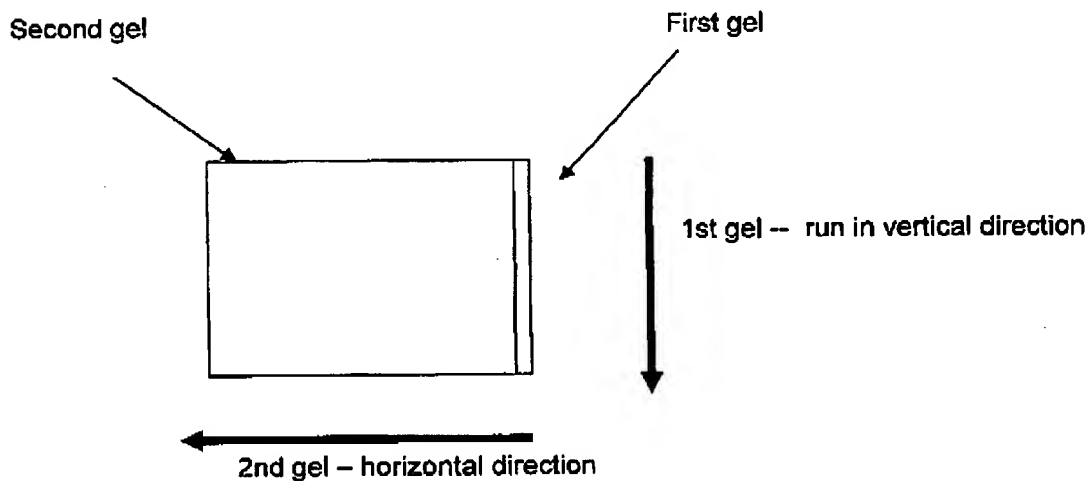
For example, persons in the art commonly refer to "pouring a gel." Clearly, a gelled material cannot be poured, yet the phrase commonly refers to preparing a (polymerized) gel. In

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some cases where it appeared especially appropriate, the term *gel solution* was used to refer to the unpolymerized mixture of uncrosslinked monomers.

The term *polymerized out* has been deleted and replaced with appropriate terminology where necessary.

With respect to the office action, page 9, comment (o), claim 2 requires that the first dimension is vertical, and the second dimension is horizontal. Please see Figure 4. For the purposes of this explanation, a first and second gel cast in this apparatus as shown may be represented as shown below.



Therefore, it is no inconsistent to run the first gel vertically and the second horizontally.